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Original.

RIGIDITY OF THE PARTURIENT CERVIX AND LOCAL ANESTHESIA IN LABOR.

BY T. H. WEAGLY, M. D.,
Marion, Pa.

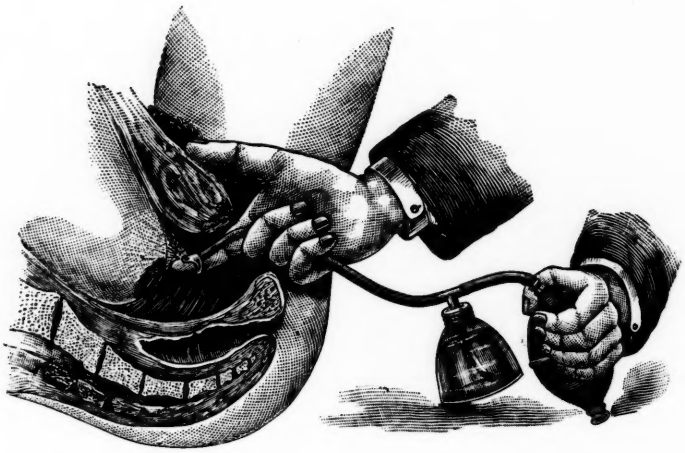
The leading title of this paper will doubtless recall to the mental vision of my professional brethren the recollection of many weary hours impatiently endured within, or in proximity to, a lying-in chamber, in which the anticipated proceeding lagged in tedious and ineffective futility, as for untold ages rigidity of the cervix has been to the obstetrician a frequent "opprobrium medicorum," persistently resisting his most earnest efforts for its relief and proving a trying ordeal both to patience and patient. So well recognized are its exasperating sequences that manifold plans and suggestions have been from time to time lauded as effective, only to be followed by failure and disappointment.

This experience, entailing loss of time to the medical attendant and protracted suffering to the accouchee, led the author to give this subject much careful thought and investigation, with the following conclusions and results:

Rigidity of the cervix is usually manifested in one of two forms differing in pathology and clinical appearance. In the first and most frequent phase, the os uteri presents to the finger a more or less constricted orifice, whose edges are thin and hard, the cervical tissue being tense, and at times seemingly as inelastic as leather. This condition apparently arises from perverted nerve energy, due to an iritability or hypersensitive state of the terminal fibres of the ovarian plexus, especially distributed within the circular sphincteric muscles of the interior cervix. In this class of cases the pains are usually short, acute and agonizing, but ineffective, with a prolonged accouchement. Relaxation of this almost tetanic contraction and relief from its excruciating acerbity can only be secured by obtunding the sensory fibres and paralyzing the motor filaments in the constricting area.

In the second form the cervical parts are redundant, and apparently, at times, hypertrophied, the tissues being thickened, congested and edematous. To relieve this, it is necessary to reduce the swelling and congestion, and render the enlarged muscular structures lax and elastic.

In our endeavors to bring about these desirable changes we are confronted by several obstacles. Ointments are not readily absorbed, vaginal douches are inadequate and painting or injecting with a hypodermic needle through the speculum impracticable. My efforts to surmount these impediments led to the evolution of a flexible finger spray, in which the tip, easily and securely adjusted to the index finger, near its extremity, may be carried therewith into cavities and a jet or spray directed to the tissues immediately in front of its palmar aspect, with



no risk of violence or injury to the parts. By this means, as shown in illustration, a solution may be readily conveyed to and gently distributed over both the vaginal and intra-uterine surfaces of a rigid cervix, passing repeatedly around within and without, using only sufficient fluid to perfectly anoint the tip of the finger, thus rubbing in, or more properly, pressing the liquid into the crypts and follicles and inducing rapid absorption.

The medicament employed is a combination embracing relaxing, antiseptic, analgesic and centric vasculo-motor properties. The formula as used by the author is as follows:

Phenolized Cocaine Sol. 3 per cent. Fl. oz. j.
Trinitrin Sol. 2 per cent. gtts. x.
Strychina Sulph. grs. 1-6.

Antiseptic Comp. or Listerine.	Thymol, Boracic Acid Gaultheria, Aqua, etc.	Fl. dr. j.

M.

This combination, the result of clinical observation and careful therapeutic consideration, meets several requirements which may be summarized as follows: The phenol is both antiseptic and anesthetic; the cocaine anesthetic and relaxing, while systemic or cardiac depression is not only obviated by trinitrin and strychnia, but the latter drug as a centric nervo-muscular stimulant tends to arouse and strengthen the dormant uterine contractile tone. With this instrument and solution, I have not only been enabled to expedite and soothe the first stage of labor, but further experience has demonstrated that later, when the occiput enters the inferior strait, by spraying the vaginal surface of the perineum and outlet, the pangs of extrusion may be reduced to a minimum, which as members of a merciful calling, it is certainly our duty to exert our best efforts so to do.

I cordially and earnestly invite the attention of the fraternity to the above facts for their consideration, and if by so doing I may be the means of lessening the oft deprecated agony of delivery, I shall feel that my feeble efforts in behalf of womankind have not been in vain.

Note.—My instrument was made for me by Charles Lentz & Sons, Philadelphia, who can supply the same, together with a sample of the aseptically prepared solution.

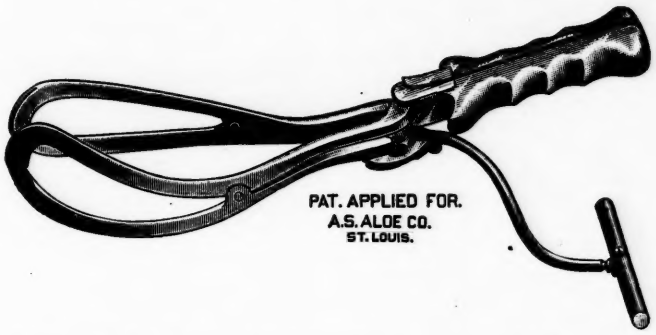
OBSTETRIC FORCEPS WITH NARROWING, ADJUSTABLE BLADES.

BY J. M. WHITE, M. D.
Shuqualak, Miss.

The forceps illustrated here are devised for cases demanding immediate delivery, where the os uteri is too small to admit of the ordinary blade. The blades of these forceps being divided into two parts, the end of one part is forked so that the end of the other part works into it. The forked end extends into the handle and the other part or end is extended into a lever, to which is attached an axis tractor.

One blade at a time is first closed and introduced; after it is in position on the child's head, it is opened. The second blade is likewise introduced and opened, and the forceps locked.

The advantage of these forceps is the ease of introduction through smaller apertures, and, hence, they can be used in placenta previa, convulsions, or other cases demanding quick delivery, where other forceps would be too large for a partially dilated os.



Dr. J. M. White's obstetrical forceps with narrowing and adjustable blades.

MEDICINAL TREATMENT OF TYPHOID FEVER.

By Gustavus Blech, A. B., M. D., Detroit, Mich.

(Read before the meeting of the Mississippi Valley Medical Association, September 6, 1895).

We have no specific treatment for typhoid fever. Hygienic and dietetic treatment alone are not sufficient, and although the so-called abortive treatment of this malady is nothing else but an illusion of a few optimistic physicians, there are a good many remedies known which will influence considerably this disease.

As late as 12 or 15 years ago the treatment was symptomatic only, the attention being directed especially to the high fever. At that time patients died with a low temperature.

To-day our treatment is more rational. We have investigated into the cause of this disease, found it to be of microbic origin, hence we treat typhoid fever antiseptically. The germs are found principally in the intestines, hence we will employ intestinal antiseptics. I will speak of it later.

As an antipyretic quinine was a favorite about 15 years ago. At present its use is considerably reduced and modern antiseptics (phenacetine, antifebrine, antipyrine) have been substituted. Hydropathy has a great many friends. On the other hand the number of opponents can not be underrated. Medicinal antipyretics in infectious diseases are dangerous, as they oppress the heart. I treat the fever if it reaches a high

degree internally with alcohol (wine cognac) externally sponging with a 20 per cent. aqueous solution of alcohol.

Now to the antiseptic treatment. Intestinal antisepsis is the parole. My previous experience with Hydrozone in gastric and intestinal affections in both adults and children induced me to try it in typhoid fever. See my report headed "The Rational Treatment of Cholera Infantum," published by the New York Medical Journal (March 2, 1895). I note with pleasure, that the editor of the Mirror, Dr. I. N. Love, of St. Louis, the well-known teacher of Paediatrics, in an editorial in the June issue of his valuable monthly, fully agrees with my methods.

I found Hydrozone not only to be a good antiseptic, but a splendid remedy against the stupor, in which all of my patients were laying and which clearly proves that the cases that I had to deal with were serious.

Soon after a few doses of Hydrozone (diluted with water 1 to 32) were administered, they felt comfortable, the semi-unconsciousness ceasing. I think the blood and blood corpuscles become saturated with oxygen and thus the brain is kept in activity. I alternate the internal treatment between Hydrozone, hydrochloric acid and alcohol.

Hydrozone has proved to be in my hands more powerful than any other antiseptic, and yet it is harmless. As a direct medication I irrigate the bowels of every typhoid fever patient with four quarts of clear water to which two ounces of Hydrozone are added. I would repeat this procedure twice daily. Depending on the temperature of the body, I would use cold water in high fever, otherwise lukewarm water will be more agreeable, and accomplish the same purpose. Irrigation of the bowels with cold water has also an antipyretic effect. Such irrigations will also check the diarrhoea and encourage a natural catharsis. They also reduce the hyperaemia and inflammation of the intestinal mucous membrane, annihilate the bacilli and if ulceration be present, will stimulate granulation and produce a healthy surface. This irrigation with diluted Hydrozone is the best remedy to prevent perforation of the bowel.

In order to obtain the desired results from irrigation, we must introduce the rectal tube beyond the sigmoid flexure. The tube, which should be neither too flexible nor too stiff, must be well oiled and carefully introduced. In this way, the fluid will enter even the caecum and reach the seat of the disease.

The treatment as I have outlined in this paper will not only have a curative effect but will also prevent the usual complications. Of course, symptoms, which per se are liable to influence the disease or endanger life itself, must be treated accordingly. In conclusion I beg to submit a short report of six cases in which the above treatment was successful.

Case 1.—Otto S., German, shoemaker, aged 24. Saw him first August 14, 1894. Has been actually sick but a few days, although as he said, he felt ill over a week. Headache, slight chills, thirsty, constipated, temperature 102.5, slight cough. Physicial examination of chest and abdomen gives negative result. Could make no definite diagnosis. Prescribed calomel and bicarbonate of soda. Saw him again on the 16th. Temperature almost 104. Could feel swelling of the spleen Tympanites. Sleeps bad in night time. Diagnosis. Typhoid fever. I ordered at once diet and sponged the body with diluted alcohol. Temperature taken five minutes after sponging 102. On the same evening I made an irrigation of the colon. A good deal of fecal matter was evacuated.

August 17, fever 104 degrees. Arrhythmia of the heart. Headache intense. No appetite. Sponging of the body by nurse. Irrigation whenever fever high was ordered. Hydrochloric acid.

August 18, same symptoms. Stupor. Has been delirious all night and appeared apathic when visited. Same treatment.

August 19, same symptoms. Roseola. Prescribed Hydrozone diluted. Rested well this night. Old treatment continued.

August 20, appears brighter. Asks many questions as to his disease. Wants to know whether his disease, the character of which was not disclosed to him, is infectious, and if so, wishes his younger sister removed.

August 25, slight hemorrhage from the bowel followed by a state of semi-collapse. Was called in a hurry. A hypodermic injection of sulphuric ether was administered, which improved his condition soon. Irrigation of the bowels with diluted Hydrozone was now made twice daily.

Patient was discharged September 2, and advised to observe diet and to remain in bed for a week. Complete recovery.

Case 2.—Miss Agnes T., Irish-American, actress, age 21, of a nervous temperament. Saw her first, August 25. Patient looked pale and emaciated. She described her condition as due to over-work and mental strain. Has been sick for over a week and was treated by an Eclectic physician. Had all marked symptoms of typhoid fever which diagnosis was confirmed on the next day. The treatment in this case was similar to the former with the exception that I had to resort to the wet pack on the 30th, as the temperature, 104.5, was not reduced by the sponging. Although the dry tongue and lips indicated a grave disease, the patient was always conscious and able to talk, which I attributed to the administration of Hydrozone. She made a good recovery after an illness of four weeks, three weeks being under my care. Patient left town to join a company in October, 1894.

Case 3, was that of a robust smith, Peter R., aged 30, married, father of four children. He was first seen by a Senior student, now a physician, practicing for a living at that time under my supervision. He did not make a definite diagnosis, attributing his fever to a cold, and prescribing pilocarpine and antipyretics. He called me in consultation August 20, fearing death of the patient. Temperature 105, pulse 110. Arrhythmia, stupor, swelling of the spleen was rather difficult to be determined, but I could feel an increase of its volume by palpation. Tympanites. No roseola, dry lips, dry tongue.

I advised sponging, which reduced the temperature at once to 103. Hydrozone was given one ounce to a quart of water as a drink. Irrigation of the colon with cold water and Hydozone was practiced, and the patient's general condition improved the very evening. Mr. K., the medical student, continued the treatment, with irrigations and sponging and prescribed internally, digitalis, strychnine and Hydrozone. Patient made a good recovery. I cannot say when he was discharged, but Mr. K. informed me that he never saw him in such a grave condition any more. With moderate symptoms he recovered after two or three weeks.

Case 4.—Joseph S., waiter, born in Polish Russia, aged 19, eight years in this country, was never sick during that time. He complained of general weakness, chilly feeling, headache, etc., and thought the "Indian summer," as the warm fall of St. Louis is called, was obnoxious to his health, and that he contracted malaria. There were no chills, however, only a slight rise of the temperature. I saw him first, September 19, but did not think much of his trouble. I prescribed Mariani wine and patient really felt better. Was called again September 24, and found patient in bed. He told me he sometimes felt cold, sometimes warm. Temperature 101.5, pulse 90. Is thirsty and desires no food. Thinking of malaria, I prescribed 10 grains of quinine ter per diem. Conditions the next day worse. I made a different diagnosis when I visited him the next day, namely typhoid fever. Patient was treated on the same principles as the former, but got pneumonia during the state of convalescence. After an illness of four weeks, however, he completely recovered.

Patient contracted in November, gonorrheal urethritis, which proves that the double malady left very little impression on him.

Cases 5 and 6, were sisters living in one house. A widow, Mrs. L., aged 32, and Mrs. B., married one year. Both had children. Mrs. L. took sick September 24, and called me the next day. Mrs. B. took sick September 29, and both sisters made a good recov-

ery. Whether one infected the other, or whether the infection came from a general source, I do not know. There was nothing unusual in the course of their diseases, the same being of rather a moderate character. After two weeks' treatment both were discharged well.

The characteristic fever curve, the swelling of the spleen, tenderness in the iliac region and roseola, left no doubt as to the diagnosis.

The younger sister was treated by me until March for anemia with iron and maltine. She was not anemic before, and this condition must be regarded as due to and following the attack of typhoid fever. When I left St. Louis (in March) the anemia was much improved. She felt stronger and objected to be treated by a physician declaring that she feels the maltine and iron preparations will bring her back to full health.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION, WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS CLINICAL COMPOSITION, ANATOMICAL STRUCTURE, AND PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERIMENTAL RESEARCH ON THE LOWER ANIMAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Continued from last number.

PART III.

THE HEART THE CENTRAL ORGAN OF THE CIRCULATION; CONSIDERED WITH REFERENCE TO ITS MECHANICAL CONSTRUCTION; ITS VITAL ENERGY, OR DYNAMICS, AND ITS SHARE IN MOVING THE BLOOD CURRENT.

Until a comparatively recent date, since the promulgation of the cellular theory and extensive researches on the functions of the corpuscular elements of the blood, the heart was regarded as the sole agent in the propulsion of the sanguinary current.

It was looked upon as a very simple piece of machinery, a sort of force pump, with a quadruple action, to receive the blood on one side, and force it through pulmonary organs, to be again received on the left, and from thence to be sent forward, through the systemic vessels.

This was certainly a simple view to take of this muscular reservoir, quite within the grasp of the most mediocre mind. It was therefore natural enough that the application of physics was directed to all those varied mechanical phenomena associated with cardiac movement.

Clinicians who have a special study of physical diagnosis have coined an almost endless category of terms, for those aberrant sounds and motions, so commonly associated with valvular lesion or functional derangments of the heart.

Investigators have, however, discovered that there are beings in animal creation, preserving an active circulation, which are cardiac in construction; and every pathologist of any extensive experience knows how deceptive and unreliable physical diagnoses of cardiac or vascular disease are; that for instance, in some cases, which in life gave indubitable evidence of structural lesion, and valvular alteration, nothing whatever was found on necropsy pointing to existing organic disease, and, per contra, those have been encountered, who in life were never cognizant of heart deficiency, but showed on post-mortem examination the most varied and pronounced evidence of valvular disorganization. And how many are there who, relying too implicitly on physical signs alone, have decided that extensive valvular lesion existed; when after a few days, perchance, normal equilbrium is restored and the heart disease (?) has vanished?

My own experiments have incontestably proven that the circulation of the blood is certainly not entirely dependent on the heart; and that the vessels, especially the capillaries, stimulated in some unknown manner by the corpuscles, continue to move the blood onward, long after the heart has been wholly removed from the body.

The animal selected for experimentation was the frog. This batrachian, for many reasons, was chosen as the most desirable to make the tests on, for though of the amphibious order, while on land he must respire to exist. It was, therefore, easy to secure ready and complete pulmonary narcosis in the extended and complex series of experiments undertaken on the circulatory apparatus. I found that the most satisfactory manner to proceed was to force ether anesthesia, until the respiratory reflexes were totally paralyzed and we had secured what might be garded as respiratory death, that condition so commonly witnessed when chloroform is administered in surgical cases. The animal lies limp and lifeless, but we will observe that the heart continues to pulsate. Now, if we open the thorax and remove the heart from its vascular connections we may proceed through the same incision to examine the lungs, which though greatly collapsed and disorded exhibit along the course of the larger peripheral capilliaries moderate corpuscular movement. In some areas the motion is an ebb and flow, a to-and-fro movement. A group of corpuscles will move onward, and then halt and recede; to again advance, though in other places; the course is in one direction only.

If we will now withdraw the tongue and so expand it that its finer vessels will show well under reflected light, we will observe in several of the finer vessels and in the adjacent capillaries a distinctly defined movement, a modified circulation. It is true that pathological changes are visible in the corpuscles and vascular walls, and that the blood moves slowly and without rhythm, or regularity, yet there is motion and the circulation is intact, though incomplete. I have seen it continue for more than two hours in the frog's tongue after cardiac evisceration.

The swift swirl through the capillaries has ceased, and are now occupied with rows of blood corpuscles packed closely together. In others those protoplasmic tubes, continuous with arterial termini, are the seat of every variety of corpuscular movement within their lumina. Their walls are evidently widely dilated, for we will now observe that the red corpuscle is widely expanded, its free, ovoid form clearly showing its crescent-shaped mucleus. The haematoblasts move on with the plasmic current, though in places where the vessels take a sharp, spiral course we may find the leucocytes, engaged in the stomata of the endothelia, or exercising the most frantic gyrations, as though seized with violent convulsive action. Under low power, in this state, the veins show a deep blue tinge, while the arteries preserve their bright, clear scarlet hue, and where they are about to break up into capillaries we will, with great ease, in many places see through their transparent adventicia the moving corpuscles. This very brief and incomplete, though faithful description of what any experienced observer may witness, under the circumstances cited, tend to controvert that what has until lately been taught, with almost dogmatic emphasis, is probably erroneous or based on a misinterpretation of normal phenomena, in the following particulars, viz.:

1. That the maintenance of the circulation is not solely dependent on cardiac force, but that it may continue after the heart is removed from the body.

2. If we are to understand by death the cessation of respiration and heart action, then the arteries do not, as we have been taught, at the moment of death discharge their contents into the veins, but preserve their vitality for considerable time after, especially in the finer ramifications.

3. There are ample and sufficient

reasons for believing that both the vessels themselves, the capillaries, and above all, the haematic elements, and the corpuscles, are endowed with highly vitalized properties, which, while moved onward by cardiac impulse from the venous to the arterial torrent, collectively, by innate and specific functions, by chemical changes, muscular movement, etc., finally assist in that incessant march or migration of the blood, which we designate the circulation.

It might be opposed to the above deductions that observations derived from animal experimentation cannot be accepted as applying to man, which in its fullest sense is partly true, yet all our greatest advances and most valuable achievements have been the outcome of researches and experiments on these lines.

Indeed the very ground work and foundation of nearly all our latest and most valuable acquisitions in physiology, pathology and bacteriology are quite entirely dependent on animal experimentation; moreover, fine physiologico histological study of the blood and other structures is quite impossible without it.

It might be objected also that if the arteries and capillaries conveyed blood for a time after death the parts on division should freely bleed. This feature of the subject will be considered later, in connection with the subject of haemostasis, physiological and pathological.

The heart then keeps the blood in motion, the arteries distribute it, and the capillaries with the contemporaneous action of the corpuscles, chemical and vital changes, send it through the various cellular elements in the progress of growth and nutrition. Next to the heart as an important mechanical, vital factor, concerned in that cycle of the blood which renders our existence possible, are the arteries, structures endowed with many functions, which, in my opinion, are yet but imperfectly understood, and from a surgical standpoint, more particularly, deserve a serious study, a few aspects of which will be considered hereafter.

(To be Continued.)

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THE URIC ACID DIATHESIS.

Dr. John F. Barbour, in an interesting and practical article on this subject, remarks as follows:

"Uric acid has now come to be regarded as one of the great poisons, fully comparable in its evil effects upon the human body to syphilis and tuberculosis, but for more insidious and slow in its action than either of these."

In commenting upon this statement, a writer in Modern Medicine says: "We entirely agree with Dr. Barbour in his startling statement. It is remarkable that, notwithstand-

ing the fact that uric acid is thus regarded by those members of the profession who have made a careful study of this subject, and have by experience learned their inability to cope with chronic disease in many of its forms, without a recognition of the important relation of this toxic agent to many pathological conditions so little is said and done in relation to the prevention of this hydra-headed malady, uric acid intoxication."

While much can be done in the prophylaxis of this diathesis by regulation of the diet and exercise of the patient, the administration of an efficient uric acid solvent, such as lycetol, will often be of decided benefit in removing the immediate effects due to the imperfect elimination of uric acid from the system. By preventing the accumulation of this substance in the blood and tissues, lycetol, which is a tartrate of dimethylpiperazine, materially aids in hastening the cure. Unlike the alkaline salts so often prescribed in this condition it wll not dsturb the appetite or digestion, while its pleasant taste enables it to be taken for long periods, even by capricious patients.

INTRAVENOUS INJECTIONS OF MERCURIC CHLORIDE.

The administration of mercuric chloride and iodide by the intestinal canal is often difficult or impossible owing to its irritating qualities, and the pain coused by subcutaneous injections of this agent is often so severe as to militate against its administration in this manner. As against the inunction method of administering mercury we have both its uncleanliness and lack of exactitude in dosage.

Inasmuch as the method of intravenous injection recommended by Baccelli is painless except for the prick of the needle, it has obvious advantages over the method of subcutaneous injection. In order to form some estimate of the practical value of this method, Gorl has recently tried it in a series of nine cases of syphilis, choosing those forms of the disease which experience has shown to be slow in recovering under ordinary conditions. The solution employed consisted of one to three parts of sublimate in 1000 parts of normal salt solution; the injections were made every second day, beginning with one cubic centimetre of the solution, and increasing to two to five cubic centimetres.

The curative effects of the mercury in these nine cases began to appear very early in the course of the treatment, in correspondence with the observations of Baccelli and Blaschko. Two cases, however, showed early recurrence of the symptoms after the treatment was discontinued.

The technique of the operation is simple. After one of the prominent veins is made to stand out by a distally placed tourniquet, a small, very sharp and preferably short needle is thrust obliquely into the vein, care being taken not to penetrate the opposite wall. The mobility of the point of the needle shows that it is within the lumen of the vein. Care should be taken not to move the needle point about so as to wound the intima of the vessel, which would cause danger of thrombosis. If the vein is properly punctured, no pain is felt by the patient when the solution is injected. If there is doubt whether the needle point is within the vein, a little fluid should be injected, and if pain results, the point is not within the vein, and another puncture should be made. The more rapidly the puncture is made the less often will the injection fail. Often, especially when a large needle has been employed, a bluish discoloration along the course of the vein will follow, which is probably due to the escape of a little venous blood through the punctured wall into the subcutaneous tissues.

In summing up his paper, Gorl concludes that the advantages of Baccelli's method are:

(1) The painlessness of the injections.

(2) The smallness of the dose and its accurate measurement.

(3) The rapidity of the curative effects.

(4) The freedom from danger (as far as observed up to the present time).

(5) The treatment does not attract attention, and does not interfere with active pursuits.

The disadvantages of the method are:

(1) The impossibility of its application in cases where the superficial veins cannot be made prominent.

(2) The early recurrence after discontinuance of the treatment.

The last objection is the strongest point against this method of treatment, which is, however, especially adapted to those cases in which the patient fears the pain of subcutaneous or intra-muscular injections, and in which the administration of mercury by inunction or by mouth cannot be well carried out. In patients especially susceptible to mercurial poisoning it is also of advantage on account of the small does required; and on account of the rapidity with which it acts it is indicated where an early effect is needed, for example in the affections of the eye and brain during the secondary stage. In these latter cases the treatment should be followed by a course of inunctions in order to render its effects permanent.

The method of intravenous injections, then, is to be recommended only in certain cases of specific disease, and, contrary to Baccelli's views, is not adapted to the treatment of all cases where mercury is indicated.—Boston Med. and Surg. Journal.

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

POLYARTICULAR RHEUMATISM FOLLOWING SEROTHERAPY.—GAILLARD.

A woman attacked with sore throat received an injection of 40 c. c. of Roux's serum. No immediate symptoms followed and the patient left the hospital a week afterwards. The bacteriological examination showed only staphylo and strepto-cocci. Two weeks after the injection the patient returned with polymorphous erythema and acute polyarticular rheumatism. The rheumatism yielded to two doses of six grammes per day of salicylate soda. The symptoms seemed due to the injection.

The death of Professor Hoppe Seyler, of the University of Strasburg, is announced in the Bulletin of the Academy of Medicine, on August 20, 1895.

TRIONAL AS AN HYPNOTIC FOR CHILDREN.

In the course of incessant progress in chemistry, one of the interesting objects has been the obtaining of an agent promising prompt and sure hypnotic qualities, free from any dangerous properties. Thus we have seen successively appear hypnone-paralothyde, unthane, methylene, hydrate, hypnol and chloralose. In 1885, Bauman and Kast, by combining mercaptous with aldehydes obtained sulphur-acetols, which they designated as mercaptols and which, under oxidation, were converted into derivatives called di-sulphous, which were named sulphonal trional and tetronal. Trional was selected from among these for experimental purposes. This has proved an effective remedy in children in combating insomnia in the different fevers, both specific and malarial. Given in small doses, it insures sleep of a quiet and refreshing nature. In tuberculous meningitis, it acted astonishingly well after the failure of the ordimary means; also in cerebral sclerosis it produced quiet and sleep. In chorea and tuberculosis it was also useful, but in insomnia due to pain it did not have the same results. Tolerance is good, the remedy having been given for long periods without ill effect

In resume:

Trional seems to act better than any other of the hypnotics. It is well tolerated in children; it possesses a sedative action on the brain, useful

in cases of excitement of the organ or its membranes.—Dr. Moncorvo, Bull. de l'Academie de Med.

PHYSIOLOGY AND MUSIC.

Ferrand thinks music can clearly express the sensations and sentiments, but not ideas; that it is an incomplete and imperfect art. On the contrary, M. Maidat considers music an absolutely complete art, capable of expressing all the sentiments.—La France Med.

TAKA DIASTASE.

(From the Therapeutic Gazette.)

BY FERDINAND LASCAR, PH. GR.

In the human system a continued waste takes place which it is necessary to provide for, and to this end man partakes of food which must contain the elements for this purpose. To bring such food products into proper form, so that they can be assimilated and taken up in the system, the digestive organs perform their functions, and these are of a mechanical and chemical order. The food needed is both animal and vegetable in nature, the latter forming by far the greater and more important part. It can truly be said that upon the proper digestion of his food, man's health, happiness, and very life depend, and progressive science has fully demonstrated the unerring truth of this. Any irregularity or fault in the process of digestion very soon becomes manifest and dyspepsia, malnutrition and ill health follow. As the food man partakes of is twofold, so is the process of digestion a twofold one, animal and nitrogenous foods needing an acid, while vegetable, starchy foods need an alkaline process to bring them into a soluble form ready for assimilation. The general idea about faulty digestion is that the stomach performs its duties improperly. While this, in very many instances, is undoubtedly so, the fact is, nevertheless, that in the greater number of cases of impaired digestion improperly performed processes of other organs are at the bottom of the evil in failing to properly convert the starchy food partaken of.

The changing of amylaceous food into dextrose and maltose is the beginning of digestion. All will have observed that bread, crackers, or potatoes, not being sweet in themselves, very soon become so when masticated and thoroughly mixed with the saliva in the mouth, and that their taste becomes sweeter the longer this is continued. This sweet taste is due to the conversion of the hydrated starch by the action of the saliva upon it, the saliva containing an enzyme called ptyalin, which, by its presence, splits up the starch into soluble products which I will mention later on, and this splitting-up process of the starchy food even continues after it has left the stomach. Animal foods needing the acids which are found in the stomach are digested there, but acids materially interfere with the action of enzymes which cause the conversion of starch, even destroying such action altogether. For this reason it seems practically incorrect to say that the conversion of starch continues after it leaves the mouth; but nature has provided against a too soon interference of acids, because it is now well understood that acid, especially hydrochloric acid, is secreted in the stomach a considerable time after the food has arrived there, and this may be one of the reasons why the conversting of starch continues after it has left the mouth.

Since medical science has thoroughly grasped the philosophy of digestion, it has been the aim by artificial means to supply the enzymes which digestion calls for when they do not appear to be present in a sufficient quantity or are secreted in less potent form by the digestive organs. Science has succeeded fairly well in supplying gastric and pancreatic ferments when nature lags behind; but our success has so far been only a very partial one in supplying starch-converting substances, and for this reason a new and seemingly valuable discovery in this direction at once becomes interesting.

That diastase has an identical action with ptyalin upon starch is a fact long known, and for this reason the diastase contained in malt has

been employed for this purpose. Diastase is contained to a lesser or greater extent in the different extracts of malt, and in minute quantities also in fermented malt preparations. In the latter the diastatic action, however, is generally totally destroyed by the acids present. Even in the best extract of malt there is only a limited and variable amount of diastase present; and while the extract of malt will continue to play an important role as a dietetic agent, its utility as a starch-converting agent will always remain a limited one. From time to time pure diastase has been offered to the profession, but none has so far proved of a sufficient potency to recommend itself to general use. Great progress in this direction is the discovery of Mr. Takamine, a chemist of no mean ability, who acted as one of the commissioners of Japan at the Cotton Exhibition in New Orleans several years ago. At that time he showed me an extract of malt, as manufactured in Japan, very rich in diastase and nutritive properties, and which I have mentioned in a paper on the diastatic and nutritive properties of malt extracts, published in the December number, 1891, of the Epitome of Medicine. In that paper I warned against too great heat in the manufacture of malt extracts, as heat impairs, and is even liable to totally destroy, the diastatic action. The avoiding of all undue heat in preparing diastase may be one of the reasons why the diastase, which is now manufactured by Parke, Davis & Co., under Mr. Takamine's discoveries, is so perfect in its action in converting starch into maltose and dextrose His product is a dry powder similar in appearance to some I received from a reputable German firm years ago, but is vastly superior in potency. Since the receipt of this German preparation I have frequently had occasion to experiment with various diastases, some being named vegetable ptyalin, but in no instance have they come up to the desired standard, and failed to fill the void felt for an enzyme which will accomplish what the enzyme of saliva in a healthy individual does accomplish.

In comparing notes of experiments lately conducted with taka diastase, other available diastases, and different extracts of malt, I find that the claim of the taka diastase that it will convert a hundred times its own weight of starch into a soluble state is well authenticated, for I have succeeded in converting even fifty per cent. more of starch than is claimed for it. Another point in favor of taka diastase above other similar products is the quickness of its action upon starch, for the action is almost instantaneous. To convert one hundred parts of starch into a soluble state by the action of one part of taka diastase, under proper conditions, it takes only four minutes until neither iodine test nor the microscope can detect unconverted starch. The product of converted starch with Mr. Takamine's taka diastase is to a great extent maltose. Compared with the time required by the best extract of malt to convert starch, this is certainly an excellent showing, for it took the best malt extract between seven and eight minutes to convert its own weight of starch into a soluble state, while with some other extracts of malt it took fifteen, twenty, and thirty minutes to partially accomplish this end. Tests with Fehling's solution to ascertain in the converted starch products the amount of contained sugar therein were equally favorable to taka diastase.

In converting starch into a soluble state by the action of diastase, the rearranging of the molecules of starch is understood to be as follows:

Starch ($C_{12}H_{20}O_{10}$) 10 plus water, H_2O, are first formed into erythro dextrose and maltose

($C_{12}H_{20}O_{10}$)9 and $C_{12}H_{22}O_{11}$.

By the continued action of diastase further hydration of the erythro-dextrose takes place.

The erythro-dextrose further splits up into erythro-dextrous-(B) and maltose, the ultimate result being a small amount of dextrin (anchrodextrose) and eight or nine equivalents of maltose Since Leuch's discovery of the specific starch-converting property of saliva and its ptya-

line, we have lacked an agent of sufficient potency to accomplish what good healthy saliva does, and, for the first time, we find in taka diastase a substitute of undoubted worth, which, even in the presence of a minute quantity of acid, does not cease to be potent. The ptyaline in saliva is present there in a neutral or weak alkaline state, and for this reason it suggests itself that diastase, being an analogue with the former, acts also at its best in such a state, and is incompatible with acids. I employed in the greater number of my experiments with diastase carefully washed arrow-root—a perfectly bland and neutral starch; but I found that starches giving a slight acid reaction on blue litmus were equally well converted by taka diastase. In testing diastase as to its potency I would recommend that the iodine as well as the copper tests be employed, and that undue employment of heat under all circumstances should be guarded against, as heat, as already mentioned, destroys the action of diastase.

Taka diastase being a dry powder, tasteless and of no perceptible odor, can be given in very small bulk, and for this reason I think it will prove itself of value in infant feeding, where it is desirable to give starch-containing foods, provided said food would easily dissolve and the infant's saliva could be relied upon to perform that function. That the new diastase is destined to become a favorite with the profession I have no doubt, having acquainted myself with its potency in converting starch in a minimum of time into a form ready for absorption by the system, and I think it will be found the very remedy for which we have waited so long.

WATERLOGGING FROM ANESTHETICS.

"Dr. Joseph Price says that in his own work at present shock is simply unknown. What is sometimes called shock is simply waterlogging with an anesthetic." Commenting on this, the Denver Medical Times makes the rather surprising assertion that "men and women graduate from the best medical schools in the country and practice surgery, and yet never know how to give an anesthetic. A great deal of fuss is made about histology, microscopy, etc., and yet a student may attend three years in any one of the best medical colleges in the United States, and never receive one hour's practical experience in the giving of ether or chloroform. Even the internes in the hospitals are not instructed; they are simply allowed to suffocate, overpower and fight their way as best they can.

"The fact is the operator dare hardly to offer a suggestion, the anesthetiser is so extremely sensitive. As long as this condition of affairs continues there will be 'waterlogged patients dying from so-called shock.'"

And we add: There will be an immeasurable amount of suffering endured by the most innocent and interesting of our fellow-beings, merely because the great majority of their medical attendants have never learned practically how to employ anesthetics in labor; and because this class of patients and this alone think it their duty to be martyrized!—N. Y. Med. Times.

OYSTERS AND TYPHOID FEVER.

The Lyon Medical for August 18 publishes an article on this subject by M. J. Lavis, of Monte Carlo. The author states that when he began to practice in Naples he was struck with the number of gastric troubles which presented themselves, especially among newly arrived persons. These disorders varied in intensity, ranging from slight indispositions to violent attacks of gastro-enteritis. He was led to discover the cause of these attacks by observing that each time he and his wife had eaten oysters they were taken sick afterward. The symptoms were nausea, vomiting, dysenteric diarrhoea accompanied by characteristic colic of the large intestine, and tenesmus. These facts, says the author, led him to question his patient, among whom he found a number in whom the ingestion of oysters had been coincident with the beginning of the disease.

One of the most serious results as-

certained in these observations was that a certain proportion of the attacks of gastro-enteric catarrh was more or less rebellious to treatment, which was successful, however, in the majority of cases. The chronic cases were always accompanied by a degree of fever out of proportion to the local symptoms of simple catarrh, indicating the existence of an infection, or, at least, ptomaine poisoning. In the minority of cases, says M. Lavis, the typical typhoid fever of the Mediterranean developed. In other cases the symptoms of typhoid fever set in on the twelfth or the sixteenth day after the ingestion of the oysters, although no apparent derangement had manifested itself immediately after eating them.

With regard to the oyster itself, the author found that it was simply the passive vehicle of infection. Those consumed in Naples, and in Rome also, are found in different parts where there is no reason to suspect infection from human excreta. They are kept alive, however, in eel-pots, which are sunk in the waters of the port of Santa Lucia, where they remain for weeks and even months. At a short distance from the port a large sewer empties its contents into the water, which is not very deep and almost stagnant. Consequently, says the author, when these oysters are eaten a certain amount of the infected water is taken into the system. This infectious matter contains bacilli of typhod fever and of cholera.

The variety of the morbid process, says the author, engendered by a food charged with the infectious matter of a sewer can not be explained except by the peculiar susceptibilities of each individual, and probably also by the variety of organisms that predominate at one time or another in the infectious matters.

The author states that he has often eaten oysters that were taken fresh from Lake Fusaro and Lake Lucrin and experienced no bad results. This shows, he thinks, that the oyster in itself is not the cause of the infection observed by him, but that it is caused by the polluted water in which it is kept.

It is only by the strictest supervision, he says, of the oyster depots in London, many of which are in a disgusting sanitary condition, also by the supervision of the water in which the oysters are kept, that we can prevent the abandonment of a food that is valuable alike for convalescents and the overtaxed brain. These observations apply also to all shell fish eaten raw.—N. Y. Med. Journal.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

ABDOMINAL HYSTERECTOMY—TECHNIQUE, CRITIQUE AND RESULTS.

BY M. GENTILHOMME, There de Paris, Annales de Medicine, 1 Aout, 1895.

This author divides his subjects into two classes, supra-vaginal and total ablation. In the first group he considers the extra-peritoneal method, intra-peritoneal and mixed. In the second, the vagino-abdominal, abdomino-vaginal and simple abdominal.

Supra-vaginal amputation he commences by the method extra-peritoneal. This, he claims, is one of the first, being employed by Kimball, in 1855, and Kreberle, in 1861, to remove a large fibroid. Hoeberle raised the fibroid after having first ligated the pedicle with two strong sutures.

Penn modified this plan; he detached the tumor in pieces and passed in the ligatures through the vertical planes.

Kleburg replaced the metallic suture by an elastic ligature.

These procedures have undergone further changes at the hands of Pozzi, Hegar and others.

The Procedure of "Hoberle-Hegar"—Antiseptic precautions are rigorously observed. Often the tumor is exposed, its interior wall is stripped and an elastic constrictor is applied. A sound is passed into the bladder, in order that this organ may not be injured. Now, the two hard ligaments are divided between two ligatures.

After having lifted out the tumor

we fix the pedicle at the base of the abdominal incision, two sutures only being employed for this purpose. Pozzi places several strong catgut sutures around the vessels and always freely fires the pedicle with the thermo-cautery before dropping it back, though some others are content to depend entirely on the styptic action of tannin to control oozing from the raw surface. The elastic ligature falls off about the fifteenth or twentieth day.

Modification by Katenback—Differs from the preceding, inasmuch as he directly carries his elastic suture through the centre of the stalk and ligates it in two sections. This answers admirably in those tumors which have thick pedicles.

Procedure of Moore and Kuster—These make a circular incision through the peritoneum, stripping it away from the growth and ligating the vessels separately.

The border of the capsule is sutured into the abdominal wound. In Kuster's plan drainage is maintained through the vagina.

Modification by Fowler—This author sutures the capsule of the tumor to the abdominal incision, having destroyed its interior with the thermo-cautery. The remnants of the growth are eliminated completely on about the thirtieth day. M. Gentilhomme speaks at length on the advantages and inconveniences of the extra-peritoneal method. which, he admits, gives the greatest protection against hemorrhage. The chances of infection, however, he believes, are great, suppuration, the sinking into the pelvis of the pedicle, with hernia or eventration. And for this, sometimes, when the pedicle is short, it is quite impracticable.

The intra-peritoneal method was first employed by Kimball, in 1852; Katenbach, in 1874, and Spencer Wells, in 1888. Wells proceeded in the following manner: He divided the tumor above a powerful clamp forceps, which compressed its base, closed in with great care all bleeding points and connected the stump with peritoneum. Schroeder and Czerny later perfected this methed a septic and the cautery is employs this method, draining through the vagina by way of the vagina.

Baldy, of Philadelphia, with slight modification, employs this plan, though he always begins by first ligating the uterine vessels.

Olshausen, after having rolled the tumor out through the incision, applies an elastic ligature around the pedicle. Now, everything is rendered antiseptic and the cautery is employed, when the peritoneum is reflected back over the pedicle, the elastic and all buried together, the latter being left to encapsulate itself. This procedure has given rise to serious hemorrhage, infection and fistulas.

Schwartz, Zweifel and Chapu all proceed by ligating all vessels accessible before the tumor is divided; then peritoneal flaps are employed to cover the inside surface.

In fact, there seems almost no end to the various modifications which have been made in the intra-peritoneal method during the past ten years. Many of them are trivial and unimportant, such as would be adopted by any experienced, accomplished operator, while others are essentially on a similar principle, and only differ in technique.

VAST CICATRICIAL FORMATIONS IN THE VAULT OF THE BLADDER IN A FEMALE.

BY DR. E. LORNEAU.

The author reports a case of vesicular ulceration of unusual dimensions in a woman, who had been a long time suffering from all the agonies attendant on chronic cystitis. The patient was 47 years old, menstruated from the twelfth to the thirty-eighth year. She was married at 15. She menstruated regularly, without any serious inconvenience, except occasionally severe attacks of pain toward the end. At the age of 33, without any special cause, she commenced to suffer with vesical symptoms, having severe tenesmus, especially troublesome at night. At first she commenced to pass serosanguinolent urine; later, an admixture of pus appeared. In the mean-

time her general health began to suffer, her appetite failed and the demand for frequent urination made it impossible to secure continued sleep. Medicines had been tried and the mineral waters given; but all without avail; she continued to lose ground

After having suffered more than ten years and her debility became so great that she had to discontinue every description of labor and give up her home, she came under the care of M. Lorneau.

He found no signs of any organic disease, and, on a most thorough examination of the urine, failed to discover any tubercle bacilli or gonococci. Since albumen was present, intermixed with the pus, which was in great abundance, on bimanual palpation, there was a distinct induration made out over the fundus of the bladder. This was exceedingly sensitive.

The diagnosis of cystitis and pericystitis was made. Now, daily lavage of the bladder was made, at one time using boracic acid, alternating it with nitrate of silver, 1-30. After three weeks' treatment it was possible to make a cystoscopic examination.

This was painless and revealed an immense branching ulcer, which occupied the whole vault of the bladder, giving off branching furrows in various directions. This had now so cicatrized as to be nearly closed, at the same time so contracting the cavity of the bladder that it now held no more than one-third it did in the healthy state. The patient refused a supra-pubic cystotomy, which, it was presumed, would permit a direct cauterization of the part of the ulcer yet unhealed.

It was supposed by M. Lorneau that the primary cause of the extensive lesion was an infection through the urethra by the gonococcus. In time the germ had become imbedded in the sub-mucous tissue, and in this manner escaped expulsion with the urine.

Three months after admission she left, completely recovered, with no trace of her former difficulty.—Le Progres Med., Juillet, '95.

THE ROLE OF THE GONOCOCCUS IN BLENORRHAGIA.

BY M. POVANINE,
St. Petersburg.

The author examined 321 cases of blenorrhagia at the military hospital, the ages of patients ranging from 21 to 25 years. Staining was made with violet gentian. In two-thirds of the cases the gonococcus was present, and in one-third, absent. Blenorrhagia with the gonococcus is the most severe, the germ often remaining up to the fifth week. The diminution of the number of microbes points to defervescence of the disease. They persist longer when the bladder is involved or in neglected cases. External complications bear no constant relation to the quality of infection. Pus globules remain through the course of the disease, but during the last week they gradually diminish. Flat epithelia are a constant element and are in great quantity during the stage of recrudescence. Their appearance always indicates the deep penetration of inflammatory action and the intensity of the disease. Other microbes than the gonococcus are commonly present in all cases.

Blenorrhagia without the specific germ runs a mild course and usually terminates in two weeks.—Annales de Med., 23 Aout, '95.

THE SURGICAL TREATMENT OF BASEDORO'S DISEASE.

BY PROF. HEYDENREICH.

Medical agents having failed, we are to entertain the question as to whether surgery shall be invoked in those dangerous processes of exophthalmic goitre. Lister, Ollier, Tillaux and many others have successfully employed thyroidectomy. Hack, Frankel, Stokes and Bull have seen many recover after the thyroid body was removed.

According to Putnam's statistics, 71 cases, there were 83 per cent. recoveries after operation. If we admit that the primitive cause lies in such neurotic disturbances as lead to hypertrophy of the gland alone, then we can understand how its removal will lead to a cure. But, however we may regard its etiology, we should

not resort to extirpation of the gland until internal medication has been thoroughly tried. Kocher has had good results from ligating the thyroid arteries, and Tillaux advises a partial removal, at least, when there has been such compression as threatens suffocation.—Annales de Med., 29 Aout, 1895.

TRANSLATIONS FROM

Foreign Exchanges

BY DRS. CHANDLER AND DARIDOW.

TREATMENT OF PHTHISIS PULMONALIS WITH ICHTHYOL.

Dr. L. Guido Scorpa, of Turin.

In spite of the numerous uses of ichthyol in internal medicine, it has had but little employment in diseases of the chest.

The antiseptic properties of ichthyol, which are particularly potent on the streptococcus and on the bacillus of diphtheria, render it of great value. It may be taken for years in doses of 5 to 8 grams daily, without causing disagreeable symptoms. From the total number of patients suffering from phthisis who have been treated by me with ichthyol, I prefer now to consider the cases of 150, who have been under my care for a long time and therefore allow a more unbiased opinion as to the efficacy of the treatment. After some experimenting, I decided in favor of the sulpho-ichthyolate of ammonium as being the best preparation of the drug and have used it exclusively. I used a 1:3 solution in oil of peppermint, which covered the disagreeable odor of the drug.

Of this 1:3 solution, I gave 20-180-200 drops in the course of the day in considerable water (one pint), to be drunk a swallow at a time.

I usually commenced with the smallest dose and increased it gradually by 10 drops every two to four days, according to the patient, up to the maximum dose of 180 to 200 drops.

Aside from a nourishing diet (with or without cod liver oil) and plenty of fresh air, disinfection of the sputa and a careful regulating of the bowels, no other drugs were used. Of course, in severe cases, the appearance of sweats, fever, pain, etc., called for the appropriate treatment. Of my 150 cases, 110 belonged to the infiltrated and 40 to the destructive form of the disease.

The results of the treatment are as follows: After a very few days (five to twelve) there was a diminution of the cough, an improvement in the character of the expectoration and an abatement of the dyspnea.

Concomitant with, or slightly after, this period, the night sweats and fever decreased and disappeared altogether; the fever becoming first remittent, then intermittent, and finally taking its departure.

Now, the general improvement becomes more marked, the appetite increases, the digestion improves and there is also an increase in the general strength, and this continues up to a point which may be designated as apparent clinical cure and has been arrived at by seventeen of my patients who came first under treatment.

In 57 cases the sputa could be examined before, during and after treatment.

In thirteen cases there was a complete disappearance of the bacilli, and in the others a very marked decrease in their number.

In the just mentioned thirteen cases the purulent sputa became first slimy and then disappeared altogether.

In all cases, with the exception of 23, in which the disease was so far advanced when it came under treatment as to preclude all possibility of a cure, there has been an improvement under treatment.

In 17 cases we may consider a cure to have been accomplished; in 50, a very great improvement in general and local symptoms; in 32, a marked improvement, although not so much so as the proceding; finally, in 28 cases there has been no perceptible change.

This last number includes those who have been but a few months under treatment, and therefore a change for improvement is not wholly out of the question.

An examination of the urine was

made in 21 cases only. There was an invariable lessening of the nitrogenous and sulphurous elements and an increase in the coloring matters. It was clear acid, without any marked sediment, sp. gr. 1021-1026, and contained no trace of albumen or sugar.

The body weight had a more or less constant increase; in one case 2 1-2 kg. in a fortnight in a rather decrepit patient.

Finally, and of great importance, was the absence of any dangerous or unpleasant action of ichthyol upon the heart.

Dr. Bogdanik, of Biala, writes in the Przeglad Lekarski, No. 22, 1895: A ten-days old child died 48 hours after circumcision. The nurse put on a dressing with 5 per cent. carbolic acid and noticed upon changing it that the bandage was colored black. On the morning of the second day after the operation, the child was cyanotic, and the physician who was called in noticed a dark violet discoloration of the skin and mucous membranes, and also that the urine was of a pronounced greenish tinge. The child died in a couple of hours, with temperature 40 degrees C., clonic cramps in hands and feet, partial trismus and great restlessness.

A post-mortem resulted in the verdict of poisoning by a carbolic acid dressing.

Dr. Gustav Beck (Prager Med. Wochens, No. 32), describes a case of pregnancy with unruptured hymen as follows: "As the number of known cases of this is extremely limited (29 in all), I take the liberty of describing such a case.

"Marie F., wife of a china painter, came to my clinic on October 25, 1893, and made the following statements: She had menstruated regularly every four weeks since her eighteenth year. Amount of blood lost was slight, with moderate pain in lower abdominal region. Duration, three days.

"Married three years without children or abortions. Last menstruation, nine weeks previous; since then a feeling of weight in the genitals and legs when standing or walking.

"Status was, woman of medium size, well nourished, lung and heart sounds normal, the breasts rich in glands, which give a drop of fluid upon pressure. Abdomen flat, linea alba slightly pigmented.

"Vulva and labia normal. The introitus vaginae was closed by a membrane which was pierced in its lower portion by an opening, which allowed only the passage of the point of a sound, and therefore permitted only a rectal examination. This gave a soft uterus, corresponding in size with one in the third month of pregnancy.

"The diagnosis was "pregnancy with imperforate hymen." The woman would not acquiesce in this and made the following additional statements: After marriage, her husband, a consumptive, had tried in vain to accomplish coitus according to Hoyle, but, as he brought on a hemorrhage of the lungs by his exertions, his physician forbade him sexually overexerting himself, and since then he had never tried an immissio penis, but in sexual intercourse merely placed it between the labiae.

"The birth of the child took place on the 10th of May, 1894, and as the membrane would not yield before the advancing head, it was divided by two cuts and delivery followed without trouble."

Dr. Adolf Havas, in Wiener Klin. Rundschau, gives the following treatment of bubos:

First, empty the pus through a cut one inch in length, then inject 1 to 2 c. c. of a 1 per cent. solution of argent. nitrat. into the abscess cavity. Change the dressing every two days, wash the edges of the wound with a solution of corrosive sublimate, 1 per cent., and inject the silver solution once more. The next day, the pus formation ceases, the livid color disappears in from two to three days, the connective tissue unites, the pain vanishes and the cure is accomplished in seven or eight days.

Polgar (Archiv. f. Gynaek, xlix,

H. I:) notes six cases of puerperal osteomalachia, and one case in a 22-year-old virgo, which was cured by castration. Four had lived in damp dwellings. Dilation of the veins and hyperemia of the uterine appendages, as described by Fehling, could be demonstrated in only two cases. All the patients had been under treatment with internal medication before coming to Polgar. The author therefore draws the conclusion that there is at present no form of treatment so effective in these cases as castration, which is indicated in all severe forms of softening of the bones.

Speaking of castration, brings to mind a case once shown by Dr. Freund, of Strasburg, who said that since the operation, the patient, instead of losing her sexual appetite, had found that it had markedly increased, much to the disgust of her 65-year-old husband.

OFFICIAL REPORT FROM THE IMPERIAL GERMAN HEALTH DEPARTMENT.

From the Kaiserliches Gesundheitsamt in Berlin comes the report of the results of the Collective Investigation of Diphtheria Antitoxin for the first quarter (January to April) of the year 1895. Recognizing the fact that the statistics at the disposal of many of the individual investigators have been but small, and realizing the importance of obtaining figures sufficiently large to eleminate the various accidental and subsidiary factors, the Chancellor of the Empire and the Reichstag have ararranged that the reports of the various hospitals should be sent to Gesundheitsamt and there be collated and tabulated. In compliance therewith there have been received for the first quarter of the year 1895, up to the date of June 20, 2228 replies from 232 physicians in 191 hospitals. In 1148 of these cases the diagnosis was confirmed by bacteriological examination.

Of the 2228 cases treated, 1805-81.0 per cent, recovered, and 386-17.3 per cent. died. In 37 cases, 1.7 per cent., the issue of the disease was not known at the time that the return was made. The mortality of 17.3 per cent. must be characterized as a very low one, since it includes all the complicated cases, and even those that were moribund on admission to the hospitals.

The ordinary diphtheria mortality, according to hospital statistics, is on the average 50 per cent., and the results may fairly be called favorable ones. The previous statistics of cases treated with the serum give similar figures. Heubner collected from a number of hospitals to the end of January, 1895, 3036 cases, mortality 20.6 per cent.; Baginsky treated 525, mortality 15.6 per cent., and Monti tabulated 3888 cases, mortality 18.4 per cent.

Grouped according to severity, the following is the result in the 2228 cases reported on:

Of mild cases there were 749 (33.6 per cent.), of which there recovered 743 (99.2 per cent.).

Of medium cases there were 336 15.1 per cent.), of which there recovered 322 (95.8 per cent.).

Of severe cases there were 1076 (48.3 per cent.), of which there recovered 722 (67.1 per cent.).

Of indefinite cases there were 67 (3.0 per cent.), of which there recovered 53 (79.1 per cent.).

As regards the influence of the serum on the general clinical course of the disease the report agrees thoroughly with Professor Baginsky, and cites his words. The phenomena of the disease and its complications were of the usual nature; but they were favorably modified as regards their severity. The entire course of the disease under the serum treatment was a quieter and milder one; and the return to a normal condition was quicker than usual. The nature of the process was not changed; but its effect on the general organism was much milder.

The influence of the remedy on the local phenomena in the pharyngeal organs is an unmistakable one, as has been proven by earlier publica-

tions. According to Heubner the local malady in cases not treated with the serum most commonly gets well at the eighth day; in cases treated with the antitoxin it occurs at the sixth day. The exfoliation of the membrane is frequently complete by the fourth or fifth day. The present statistics prove the same thing. In a large number of cases the following is noted: "Membranes began to come away on the third or fourth day;" "on the fourth or fifth day the pharynx was entirely clear." In connection with this disappearance of the membrane a rapid decrease in the size of the cervical lymphatic glands was frequently noticed.

Abscesses occurred at the site of the injection in 13 cases. With care and cleanliness they could probably be always avoided. As is well known, Trikresol is added to the serum for the purpose of not only destroying any germs that may have reached it through the air, but also of rendering innocuous any infectious material from the animal itself. And before the antitoxin is put upon the market it is subjected to a Government examination, more especially as regards its innocuousness. The danger of an accidental inflammation at the seat of the injection is therefore less, in spite of the large quantities of fluid employed, than is the case with the ordinary hypodermatic injections, such as those of morphine.

Finally, the report concludes, our statistics confirm the reports that have been received from all sides, that the diphtheria antitoxin is harmless. This fact, with the favorable mortality under its use, should encourage its further application.

Miscellany.

BLOOD ALTERATIONS UNDER ETHER.

The inhalation of ether produces a marked diminution of the red corpuscles in the blood, especially in the anemic; the effect on the hemoglobin is most marked. The leucocytes are markedly affected in their amoeboid movements.

Pneumonia succeeding ether anesthesia is produced by the chilling effects of the inhaled vapor. Oedema of the lungs may follow, in consequence of the action of the anesthetic, including intense congestion in the veins and capillaries, leading to ultimate stagnation and effusion. Nephritis is provoked by the action of the chilled blood on the renal parenchyma.

Prolonged anesthesia most profoundly deteriorates the blood and greatly retards recovery to health. —Revue Des Sciences Med. Path. Int., 15, Juillet '95, p. 232.

Noble Smith, British Med. Jour., Dec., '94., reports a case of spinal disease attended with paralysis of the lower limbs, and hyperaesthesia of the abdominal areas promptly relieved by a laminectomy of the tenth dorsal vertebra. He found a mass of granulative tissue compressing the cord. This was removed. On the second day after the operation sensation of cold was felt in the feet. Improvement continued and in three months recovery was so complete that the full power of locomotion had returned.

COCAINE IN SURGERY.

Reches again calls attention to the use of cocaine, and it appears is the only French surgeon who generally employs it to the exclusion of other anesthetics. He has employed it now in 3200 operations, with remarkable success. He describes with minutiae all the details so necessary to observe in its use to secure satisfactory results. He always limits the strength of the solution to one per cent., and makes multiple punctures, when using it hypodermically. He advises against its adoption in those suffering from hysteria or heart disease.—Revue Des Sciences Med., 15 Julliet, '95.